

REMARKS

The Examiner's understanding claim 4 was correct and an appropriate amendment has been made above. It is therefore respectfully submitted that the objections and rejection of the claim under 35 U.S.C. 112 can be withdrawn.

In order to expedite allowance of this application and the claims 1, 2 and 3 have been combined and, in addition, the lower amount for y has been specified as 0.050. See, *e.g.*, sample number 3 on page 7. Claim number 6 is unnecessary unless z is greater than 0 and the claim has been amended to so state.

The present invention is characterized in that it contains the combination of a ferrite powder and a resin, wherein the ferrite powder is a spinel type ferrite as set forth in claim 3. To the extent that the cited references refer to a binder, in contrast, that binder does not remain in the resulting sintered ferrite because any composite is fired at 800°C or higher. In the present invention, however, the resin remains in the composite. Properties favorable for a core for a high frequency inductor are obtained in the present invention by dispersing the nickel-cobalt ferrite powder in a non-magnetic resin and it is important the non-magnetic resin be left in the resulting composite.

Claims 1-16 were rejected under 35 U.S.C. 102 as anticipated by Watanabe. Given the fact that the Office Action correctly acknowledges that the reference fails to disclose a single embodiment explicitly meaning all of the limitations of claims 3 and 4, this anticipation rejection is clearly untenable with respect to any of the claims after the foregoing amendment. Withdrawal is respectfully solicited.

Turning to the rejection of claims 3-14 over the same reference but based on Section 103, it is respectfully submitted that this rejection should also be withdrawn. As acknowledged, Watanabe does not disclose a specific composition falling within the scope of the instant claims. The Office Action essentially asserts that by manipulating the broad ranges set forth in this reference, it is possible to formulate a ferrite falling within the scope

of the invention. There is, however, no teaching or suggestion of doing so in the reference, nor is there any motivation to make the appropriate selections. Moreover, even if an appropriate ferrite was achieved by serendipity, it would still have to be combined with a resin whereas the reference teaches driving off the binder resin by firing at, for example, 875°C for 2 hours.

The situation vis-à-vis JP '711 is similar. Here also the Office Action correctly acknowledges on page 7 that this reference fails to disclose a single embodiment explicitly meeting all of applicant's claimed composition limitations. Once again, obtaining a composition within the scope of the instant claims would require serendipity and would further require that the combination with a binder be not followed by high temperature firing to eliminate any resin component. See, *e.g.*, paragraph 0014. It is therefore respectfully submitted that both the rejection based on Section 102 and the rejection based on Section 103 should be withdrawn.

Claims 4, 5 and 12 and 13 were rejected under 35 U.S.C. over JP '711 in view of Uchikoba. This rejection is also traversed.

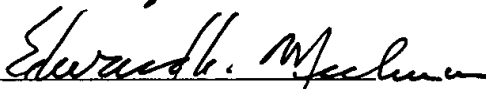
JP '711 has been discussed above. The Uchikoba reference has been asserted to teach that the amount of cobalt oxide added is one-sixth the amount of the iron oxide added, but there is no such teaching in this reference either the passages noted in the Office Action or elsewhere. It is apparent from the notes made in columns 11-12 that this assertion is actually a retrospective assertion made after doing certain calculations with respect to a particular barium-containing ferrite. There is, however, no teaching or suggestion that it would be appropriate to employ similar amounts of the cobalt relative the iron in the case of a ferrite specified in claim 3. Therefore, the basis for the asserted teaching of the U.S. patent does not, in fact, exist.

The rejection of all claims under 35 U.S.C. 103 over Lebourgeois in view of JP '711 should also be withdrawn. Note that the amount of cobalt in the Lebourgeois ferrite does not exceed 0.04 whereas in the invention it is at least 0.05. Thus, the reference does not teach or suggest the ferrite of the present invention. It also fails to teach or suggest, as

noted by the Examiner, combining a ferrite powder with resin. To the extent that JP '711 discloses the combination of a ferrite and a resin, the addition of a resin to the Lebourgeois ferrite would not result in a composition within the scope of the instant claims. Further, note that JP '711 eliminates the binder by sintering.

In light of all of the foregoing considerations, it is respectfully submitted that all of the rejections in this case should be withdrawn and that application is in condition for allowance. Accordingly, the early issuance of a Notice of Allowance is respectfully solicited.

Respectfully submitted,

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APPENDIX A
Version With Markings To Show Changes Made
37 C.F.R. § 1.121(b)(1)(iii) AND (c)(1)(ii)

CLAIMS:

3. A composite magnetic material [according to claim 2], comprising a ferrite powder and a resin, wherein said ferrite is a spinel type ferrite having a composition represented by



wherein

Me is at least one selected from the group consisting of Mg, Cu and Zn,

$0.10 \leq x \leq 0.550$;

$[0.025] \ 0.050 \leq y \leq 0.200$;

$0 \leq z \leq 0.200$; and

$0.400 \leq (x+y+z) \leq 0.600$.

4. A composite magnetic material according to claim 3, wherein x is [205-480] 0.205-0.480, y is 0.5-0.1 and $0.450 \leq (x+y+z) \leq 0.550$.

6. A composite magnetic material according to claim 3, wherein Me is Mg and $z > 0$.

APPENDIX B
“Clean” Version Without Amended/New Indications
37 C.F.R. § 1.121(b)(1)(iii) AND (c)(3)

CLAIMS:

3. A composite magnetic material, comprising a ferrite powder and a resin, wherein said ferrite is a spinel type ferrite having a composition represented by



wherein

Me is at least one selected from the group consisting of Mg, Cu and Zn,

$$0.10 \leq x \leq 0.550;$$

$$0.050 \leq y \leq 0.200;$$

$$0 \leq z \leq 0.200; \text{ and}$$

$$0.400 \leq (x+y+z) \leq 0.600.$$

4. A composite magnetic material according to claim 3, wherein x is 0.205-0.480, y is 0.5-0.1 and $0.450 \leq (x+y+z) \leq 0.550$.

5. A composite magnetic material according to claim 4, wherein z is 0.

6. A composite magnetic material according to claim 3, wherein Me is Mg and $z > 0$.

7. A composite magnetic material according to claim 3, wherein Me is Cu.

8. A composite magnetic material according to claim 3, wherein Me is Zn.

9. An inductor element equipped with a magnetic member comprising a composite magnetic material according to claim 8.

10. An inductor element equipped with a magnetic member comprising a composite magnetic material according to claim 7.

11. An inductor element equipped with a magnetic member comprising a composite magnetic material according to claim 6.

12. An inductor element equipped with a magnetic member comprising a composite magnetic material according to claim 5.

13. An inductor element equipped with a magnetic member comprising a composite magnetic material according to claim 4.

14. An inductor element equipped with a magnetic member comprising a composite magnetic material according to claim 3.